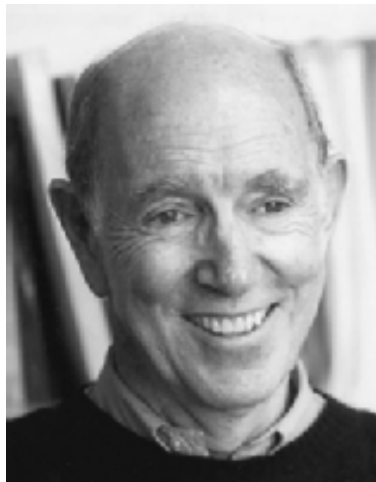


# **Cross-Cultural and Historical Perspectives on the Developmental Consequences of Education**

**Michael Cole**

**2005**

*Based on a lecture given at Oxford University, 1 November 2002*



**Mike Cole**

*Part 1 of 3 Parts*

## **The History**

# Cross-Cultural and Historical Perspectives on the Developmental Consequences of Education

Michael Cole, 2005; based on a lecture given at Oxford University, 1 November 2002

Michael Cole, University of California, San Diego, La Jolla, Calif., USA

## *Part 1 of 3 Parts*

### **Abstract**

The goal of this paper is to examine efforts to understand the developmental consequences, particularly the cognitive consequences, of children spending large amounts of time in formal schools where their activity is separated from the daily life of the rest of the community and mediated by technologies of literacy and numeracy as well as specialized uses of language. The analysis begins by examining the history of formal schooling in relation to its social and cultural circumstances and progresses through an examination of different research strategies for reaching plausible conclusions about its cognitive consequences in the sociocultural context. The discussion ends by considering two contradictory tendencies, centralized standardization versus de-centralized adaptation and separation versus embeddedness, which have characterized education since its inception and which societies around the world confront in our current historical circumstances.

---

My goal in this paper is to examine the complex issues that intersect in seeking to specify the impact of schooling on development. Such a task requires that I begin by establishing at least some general agreement about the key terms in my title, culture and education on the one hand and cross-cultural and historical on the other. Each pair is complex in its own right, and the combinations to which their various conjunctions give rise make it essential that we work from as explicit a theory of the constituents as possible when trying to ascertain how they combine to shape the outcome of schooling in development.

## Fundamental Definitions

### *Culture and Education*

Although it is famously difficult to define, at present the term ‘culture’ is generally used to refer to the entire body of socially inherited past human accomplishments that serve as the resources for the current life of a social group ordinarily thought of as the inhabitants of a country or region [D’Andrade, 1966]. There is evidence of the rudiments of culture in non-human species [McGrew, 1998], but human beings are unique in their dependence upon the medium of culture and the forms of organism-environment interactions that culture supports in order to sustain and reproduce themselves [Tomasello, 1999].

For purposes of thinking about culture and education, it is useful to begin by tracing the concept of culture as it has evolved since entering the English language from Latin and French many centuries ago. Contemporary English language conceptions of culture originate in terms that refer to the process of helping things to grow: ‘Culture, in all of its early uses, was a noun of process: the tending of something, basically crops or animals’ [Williams, 1973, p. 87]. From earliest times, this notion of culture included a general theory for how to promote growth: Create an artificial environment in which young organisms could be provided with optimal conditions to develop. Such tending required tools, both material (hoes) and mental (the knowledge that one does not plant until winter is over). These tools are perfected over generations and designed for the special tasks to which they are put. Schools, from this perspective, are institutionalized cultures for growing next generations.

From early in its history, the notion of ‘culture,’ like the notion of ‘cultivate’ to which it is closely linked, has had a second meaning which connotes a positive value to ‘being cultured/civilized.’ In England the term was also used to indicate ‘worshipful homage’ among Christians, who, within a few centuries, would seek to ‘bring culture’ to the ‘uncultivated peoples’ of the world.

When we turn to the term ‘education,’ which entered English from Latin at about the same time as ‘culture,’ we find a similar duality. Resorting to the Oxford English Dictionary (OED), we find that the primary meaning of education is ‘the process of nourishing or rearing a child, a young person, an animal’ [OED, 1971, p. 833]. The similarity between education, so interpreted, and culture, is obvious.

Education also has important alternative meanings that speak directly to the problem of understanding contemporary relations between culture and education:

- (1) ‘The systematic instruction, schooling, or training given to the young in preparation for the work of life’ [OED, 1971, p. 833], and
- (2) To ‘educate,’ the initial meaning of which was to ‘elicit or develop from a condition of latent, rudimentary, or merely potential existence’ [OED, 1971, p. 834].

As you can readily see, both culture and education refer simultaneously to process and product. They overlap in their emphasis upon sustaining the life of the community by bringing about change in children. They overlap, too, in their ambivalence about how this is to be done, through training, pruning and shaping, or through induction of latent potential. Consequently, they overlap on the uncertainties surrounding what sorts of tools to use, including what sorts of institutionalized practices are most appropriate to the task.

### *Cross-Cultural and Historical*

Equally vexing is the question of how we should view comparison across cultures and historical time in trying to envision the future of education. In the 19th century, this was not really an issue. It was widely assumed by the earliest anthropologists who studied the people to be found in Africa, the Americas and many other parts of the world, that cross-cultural comparisons were simultaneously cross-historical. So called primitive societies were taken as evidence about early stages of history for all human groups. Europeans had simply developed further faster. [Tylor, 1874, p. 69]

Enthusiasm for the equation of social evolution and progress, as it was promulgated by 19th-century social thinkers, has subsided considerably in the past century and a half. Contemporary events in the Middle East and the rise of postmodernism coincide in their revulsion for the 'master narrative' equating history and progress. James Wertsch and his colleagues [Wertsch, del Rio, & Alvarez, 1995], for example, explicitly rejected the use of the term 'cultural-historical' to characterize their ideas, many of which were inspired by Soviet psychologists who used that term, because they saw the danger that the use of Marxist ideas implied that cross-cultural variations are really cross-historical, with modern technological society as the highest rung (so far) on the ladder of history. Similarly, Robert LeVine and Merry White explicitly challenge the idea that education for life in a bureaucratized, technologically sophisticated society is in any general sense to be viewed as betterment of the human condition. They argue instead for recognition of cultural pluralism as a precondition to any effort at making general value statements [LeVine & White, 1986]. Nevertheless, the idea of socio-cultural evolution remains important in the social sciences whether viewed skeptically or not [see Feinman & Manzanilla, 2000; Hallpike, 1979; Ingold, 1986], and formal schooling mediated by written symbol systems is seen as a major contributor to both the processes of individual and social change [Goody, 1987; Olson, 1994].

Despite the well-recognized difficulties of linking schooling to its historical and social contexts on the one hand, and purportedly individual intellectual and social development on the other, recent decades have seen an unparalleled amount of scholarly research seeking to understand the consequences of different educational

arrangements in different national/cultural contexts [Serpell & Hatano, 1997]. Having forewarned you that the topic is treacherous, in order to set the stage for asking questions about consequences of schooling, I will now venture into a brief synopsis of historical variations in the ways that adults organize the lives of the young so that they acquire knowledge and skills deemed essential to communal life. I hope that the mental journey may stimulate thought about the future of education, even if the evidence is ultimately inconclusive.

### **History, Social Differentiation, and ‘Education’**

In a recent monograph entitled ‘Non-Western Educational Traditions’ Timothy Reagan argues that the term ‘education’ applies equally across all societies at all times because ‘one of the fundamental characteristics of human civilization is a concern for the preparation of the next generation’ [Reagan, 2000, p. xiii]. While I sympathize with his criticism of thoughtless writers on the topic who assume that societies lacking formal schooling are bastions of ignorance (and there are many such commentators), an unfortunate by-product of assuming a universal meaning of the concept of education forces Reagan, and many whose work he draws upon, to place the term in quotation marks, or to qualify it with terms such as ‘informal’ or ‘education in the broadest sense’ to indicate that the process of ‘preparing the next generation’ has indeed varied across time and societies. I find it more helpful to think of education as a particular form of schooling and schooling as a particular form of institutionalized enculturation. Consideration of the process of education ‘broadly understood’ in different kinds of societies can serve to concretize this ordering from enculturation (induction into the cultural order of the society), to schooling (deliberate instruction for specific skills) to education [in the sense of an organized effort to ‘bring out’ (educate) the full potential of the individual].

#### *Small, Face-to-Face Societies*

When considering small, face-to-face societies where linguistic interaction is mediated by oral language, it is widely asserted that education = enculturation = participation. For example, Jerome Bruner, in an influential monograph on culture and cognitive development, remarked that in watching ‘thousands of feet of film (about life among the !Kung San Bushmen), one sees no explicit teaching in the sense of a “session” out of the context of action to teach the child a particular thing. It is all implicit’ [Bruner, 1966, p. 59]. Elsewhere in the same essay he comments that ‘the process by which implicit culture is “acquired” by the individual ... is such that awareness and verbal formulation are intrinsically difficult’ [p. 58].

Similarly, Meyer Fortes, in his well-known monograph on education in Tale-land, emphasizes that ‘the social sphere of the adult and child is unitary and undivided ... As between adults and children, in Tale society, the social sphere is differentiated

only in terms of relative capacity. All participate in the same culture, the same round of life, but in varying degrees, corresponding to the stage of physical and mental development ...' [Fortes, 1938, p. 8].

Echoing these descriptions, Reagan reviews ethnographic evidence from 76 societies in sub-Saharan Africa and concludes that in the African setting, education 'cannot (and indeed should not) be separated from life itself' [2000, p. 29]. In terms of Reagan's approach, enculturation is an integral part of everyday life and no separate set of practices that involve deliberate pedagogy are required for the activity to count as schooling or education. I prefer to distinguish these forms in terms of their social organization and the forms of pedagogy involved.

However, even in such small, face-to-face societies there are exceptions to these generalizations concerning the total fusion of adult and child social sphere, such as rites de passage, and I am always suspicious of accounts which minimize the heterogeneity within cultural groups (with respect to sex role obligations, for example). But for purpose of argument, let us assume that this picture of undifferentiated social life and education-as-enculturation represents a rough approximation to most of life in small, face-to-face, hunter-gatherer groups or subsistence farming groups.

#### *Rudimentary Forms of Separation between Enculturation and Schooling*

Even granting such a starting point, where life and schooling/education are fused, what one encounters in many small societies where agriculture has displaced hunting and gathering as the mode of life but which remain small in size and relatively isolated from each other, are the beginnings of differentiation of child and adult life. These beginnings suggest early forms of deliberate teaching which usually involve a good deal of training, but perhaps with some degree of inducing involved as well.

In many societies in rural Africa, for example, what are casually referred to as rites de passage may be institutionalized activities that last for several years – and teaching is certainly involved [Reagan, 2000]. For example, among the Kpelle and Vai peoples of Liberia, where I worked in the 1960's and 1970's, children were separated from their communities for four or five years in an institution referred to in Liberian pidgin as 'bush school.' There, children were instructed by selected elders in the essential skills of making a living as well as the foundational ideologies of the society, embodied in ritual and song. Some began there a years-long apprenticeship that would later qualify them to be specialists in bone setting, midwifery, and other valued arcane knowledge.

## Social Accumulation, Differentiation, and the Advent of Schooling

Shifting to the historical record, it appears that it is primarily, if not only, when a society's population grows numerous and it develops elaborate technologies which permit the accumulation of substantial material goods that the form of enculturation to which we apply the term 'schooling' emerges.

As a part of the sea change in human life patterns associated with the transition from the bronze age to the iron age in what is now referred to as the Middle East, the organization of human life began a cascade of changes which, while unevenly distributed in time and space, appear to be widely, if not universally, associated with the advent of formal schooling. In the Euphrates valley the smelting of bronze revolutionized economic and social life. With bronze it became possible to till the earth in more productive ways, to build canals to control the flow of water, to equip armies with more effective weapons, and so on. Under these conditions, one part of the population could grow enough food to support large numbers beside itself. This combination of factors made possible a substantial division of labor and development of the first city states [Schmandt-Besserat, 1975].



**Fig. 1.** Excavation of an early classroom from Sumer

Another essential technology which enabled this new mode of life was the elaboration of a previously existing but highly restricted mode of representing objects by inscriptions on tokens and the elaboration of the first writing system, cuneiform, which evolved slowly over time. Initially the system was used almost exclusively for record keeping but evolved to represent not only objects but the sounds of language, enabling letter writing and the recording of religious texts [Larsen 1986; Schmandt-Besserat, 1996].

The new system of cuneiform writing could only be mastered after long and systematic study, but record keeping was so essential to the coordination of activities in relatively large and complex societies, where crop sizes, taxes, troop provisioning and multiple forms of exchange need to be kept track of for the society to exist, that these societies began to devote resources to support selected young men with the explicit purpose of making them scribes, people who could write. The places where young men were brought together for this purpose were the earliest formal schools.

#### *Earliest Known Example of a Sumerian School*

Not only the activities that took place in these schools but the architecture, the organization of activities, and the reigning ideologies within them were in many respects startlingly modern. As shown in figure 1, the classroom consisted of rows of desks, facing forward to a single location where a teacher stood, guiding them in

Ancient lists		Modern lists	
<i>Subject</i>	<i>Items</i>	<i>Subject</i>	<i>Items</i>
Trees	84	Presidents of US	40
Stones	12	States of the Union	50
Gods	9	Capitals of the States	50
Officials	8	Elements of periodic table	150
Cattle	8	Planets in the solar system	9
Reeds	8		
Personal names	6		
Animals	5		
Leather objects	4		
Fields	3		
Garments	3		
Words corresponded with gar	3		
Chairs	3		

**Table 1.** List learning in school: ancient and modern



repetitive practice of the means of writing and the operations that accompanied it. Note that instead of inkwells, the classroom contains bowls where wet clay could be obtained to refresh current tablets. In many such schools, the compiling of quantified lists of valued items was a major pastime, although some letter writing also occurred. These lists were often viewed as evidence of extraordinary cognitive achievements. Table 1 compares an ancient list with one current in American schools.

Significantly, evidence concerning early schooling indicates that more than socially neutral, technical, literacy and numeracy skills were thought to be acquired there. Learning esoteric lists and the means for creating them were imbued with special powers such as are currently ascribed to those who are 'civilized,' and it was clearly recognized that socio-economic value flowed from this knowledge. As one father admonished his son, several thousand years ago:

*I have seen how the belaboured man is belaboured – thou should set thy heart in pursuit of writing ... Behold there is nothing which surpasses writing ...*

*I have seen the metalworker at his work at the mouth of the furnace. His fingers were somewhat like crocodiles; he stank more than fish-roe ...*

*The small building contractor carries mud ... He is dirtier than vines or pigs from treading under his mud. His clothes are stiff with clay ...*

*Behold, there is no profession free of a boss – except the scribe, he is the boss ...*

*Behold, there is no scribe who lacks food from the property of the House of the King – life property, health! [Quoted in Donaldson, 1978, p. 84f]*

Although some features differ, a similar story could be told for China, where bureaucratized schooling arose a thousand or so years later, and in Egypt as well as in many of the civilizations that followed. In the Middle Ages, the focus of elementary schooling shifted to what LeVine and White [1986] refer to as 'the acquisition of virtue' through familiarity with sacred texts, but a certain number of students were taught essential record keeping skills commensurate with the forms of economic and political activity that needed to be coordinated through written records. Such is the state of schooling in many Muslim societies to this day, although there is great variation in Islamic schools, depending upon whether the local population speaks Arabic and how formal schooling articulates with the state and

religion in the country in question [See Serpell & Hatano, 1997, for a discussion of these variations and their implications].

As characterized by LeVine and White [1986], the shift from schools in large agrarian societies to the dominant forms found in most contemporary industrialized and industrializing societies manifests the following set of common features:

- (1) The school has been internally organized to include age grading, sequentially organized curricula based on level of difficulty and permanent buildings designed for the purpose of teaching.
- (2) The incorporation of schools into larger bureaucratic institutions so that the teacher is effectively demoted from 'master' to a low level functionary in an explicitly standardized form of instruction.
- (3) The re-definition of schooling as an instrument of public policy and preparation for specific forms of economic activity – 'manpower development.'
- (4) The extension of schooling to previously excluded populations, most notably women and the poor.

The dominant form of schooling adopted currently around the world is based upon this European model that evolved in the 19th century and which followed conquering European armies into other parts of the world [see LeVine & White, 1986; LeVine, LeVine, & Schnell, 2001; Serpell & Hatano, 1997, for a more extensive treatment of this evolution]. However, locally traditional forms of enculturation, even of schooling, have by no means been obliterated, sometimes preceding [Wagner, 1993], sometimes co-existing with [LeVine and White, 1986] the more or less universal 'culture of formal schooling' supported by, and supportive of, the nation state. Often these more traditional forms emphasize local religious and ethical values [Serpell & Hatano, 1997]. Nonetheless, these alternatives still retain many of the structural features already evident in the large agrarian societies of the Middle Ages.

As a consequence of these historical trends, one institutional form, somewhat crudely identifiable as 'Western-style' education, has become an ideal if not a reality all over the world (the Islamic world providing one alternative in favor of adherence to religious/social laws, as written in the 'Q'uran,' a word which means 'recitation' in Arabic). The 'Western-style' approach operates in the service of the secular state, economic development and the bureaucratic structures through which rationalization of this process is attempted; it exists as a pervasive fact of

contemporary life. According to a survey conducted by UNESCO in 1998, by 1990 more than 80% of children in Latin America, Asia (outside of Japan) and Africa were enrolled in public school, although there are large disparities among regions and many children only complete a few years of schooling. Nonetheless, experience of what, for a better word, I am calling 'Western-style' schooling has become a pervasive fact of life the world over [Serpell & Hatano, 1997].

With this set of considerations as background, I now turn to the question of the consequences of this pervasive form of educational experience for the development of individual children, their communities, and humanity more generally, in the contemporary world. I will pay special attention to the role of culture and cultural variations in shaping any such consequences.

---

**From:**

[https://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CDUQFjAA&url=http%3A%2F%2Fchc.ucsd.edu%2FPeople%2FCole%2Fhumdev.pdf&ei=IU3-UL\\_yFs3K0AXRuYHYDA&usg=AFQjCNGzwnELoDAWCjKytwyzPicIKhoA0Q&bvm=bv.41248874,d.d2k](https://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CDUQFjAA&url=http%3A%2F%2Fchc.ucsd.edu%2FPeople%2FCole%2Fhumdev.pdf&ei=IU3-UL_yFs3K0AXRuYHYDA&usg=AFQjCNGzwnELoDAWCjKytwyzPicIKhoA0Q&bvm=bv.41248874,d.d2k)

(1.5Mb PDF)

---

**For the full list of References, please see part 3.**

**Course: Education**

**23031, Cole, Perspectives, Part 1, The Advent of Schooling, 2005**

3549 words